

JPRS-TEP-90-008  
20 JUNE 1990



**FOREIGN  
BROADCAST  
INFORMATION  
SERVICE**

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# ***JPRS Report***

# **Epidemiology**

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# Epidemiology

JPRS-TEP-90-008

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20 June 1990

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## GAMBIA

### Anthrax Outbreak Kills 10

AB1805225790 Dakar PANA in English 1604 GMT  
18 May 90

[Excerpts] Banjul—There has been an outbreak of anthrax disease in humans which resulted in the death of 10 people in the Upper Division of The Gambia, some 400 kilometres east of Banjul, the head of research and investigations at the Gambian Department of Livestock Services, Dr. Ebrima Touray, said in Banjul on Friday.

Touray said in two adjacent villages in the division, Julagel and Sare Musa, both of which are agro-pastoral communities, 20 heads of cattle and horses and flocks of sheep and goats also died in the two villages in the past week.

He attributed the cause of the disease in humans to their eating of uninspected meat, following the emergency slaughter of infected animals by farmers eager to save the meat for local consumption.

Since the animals were infected with the disease, he said, those who ate the meat were struck with it resulting in their death at two up country health centres where doctors were able to diagnose the disease. [passage omitted].

Touray said the current outbreak has already been brought under control. His department has imposed a quarantine in the affected area until further notice. Preventive vaccination of domestic animals in outbreak areas and the immediate community is also being carried out by staff of the department of livestock services. [passage omitted]

## LIBERIA

### Conjunctivitis Among Refugees

AB1306122790 Monrovia Radio ELWA in English  
1710 GMT 12 Jun 90

[Text] An outbreak of conjunctivitis or apollo has been reported at the St. Peters Lutheran Church in Sinkor, where displaced people have sought refuge over the past weeks. A local daily said several displaced persons have been affected by the outbreak. The pastor of the church, Reverend Joseph Allison, has appealed to the public for assistance to bring the situation under control. Pastor Allison said the sanitary situation of church compound is posing serious health problems for the refugees. He said the Liberian Council of Churches [LCC] is thinking on constructing more bathrooms and toilets in the compound. The council has also called on the Liberia Water and Sewer Cooperation to help the Christian Health Association of Liberia, CHAL, to dig wells on the church grounds to ease the water problem. CHAL has already started the well project.

Meanwhile, LCC has appealed to the public for zinc, paint, pipes, and commodes among other needs to help bring relief to the displaced people within the Lutheran church compound.

## MADAGASCAR

### Press Reports of Plague Cited as Media Campaign

90AF0087Z Port-Louis WEEK-END  
in French 18 Mar 90 pp 39-40

[Excerpt] "Exaggerated reports of the existence of plague in Madagascar are part of a media campaign to destabilize countries of the region and regional cooperation." That was how the Malagasy minister of foreign affairs, Mr Jean Bemananjara, curtly summed up the situation to WEEK-END Thursday when questioned about the resurgence of the disease in the Big Isle. "There is rabies in France, and many cases of AIDS in the United States—do people no longer go to those countries?" wondered the Malagasy minister, who felt it important to emphasize that plague is a curable disease. He then went on to say that, contrary to rumors being bandied about, the Third Island Games will positively be held in Madagascar this year. [passage omitted]

## MOZAMBIQUE

### Mozambique Isle Hunger, Disease Cases Increase

MB2105173190 Maputo Domestic Service in Portuguese  
1030 GMT 21 May 90

[Text] Over 1,300 cases of malnutrition and skin disease were reported in the first quarter of 1990 on Mozambique Isle, Nampula Province.

The patients are part of about 1,600 war-displaced children up to 15 years old who were registered during the same period.

Mozambique Isle's health director told Radio Mozambique that various plans are underway to minimize the problem. He added that there has been an increase in malaria cases on Mozambique Isle due to poor sanitation conditions.

### Malaria Kills 44 People in Maputo Hospital

MB0506141190 Maputo Domestic Service in Portuguese  
1030 GMT 5 Jun 90

[Text] A malaria outbreak has killed 44 people in Maputo Central Hospital's pediatric unit during the first quarter of this year.

Health authorities blame the outbreak on torrential rains at the end of 1989 and the beginning of this year. Data collected at the Maputo Central Hospital indicates more than 80 percent of the 12,000 patients treated there between January and May suffered from malaria.

It should be recalled malaria killed 15 people in Gaza Province's Chibuto District over the last three months.

### **Cholera Deaths Continue To Rise**

#### **Extensive Anticholera program**

*MB1905104890 Maputo Domestic Service in Portuguese 1730 GMT 19 May 90*

[Text] Cleanup campaigns continue in the working and residential areas of Tete Province as part of an extensive anticholera program.

Health and sanitation classes are underway in the wards of Tete's capital, while the city's town council is intensifying garbage removal.

A total of 24 people in Tete died of cholera as of this morning. A Health Ministry source in Maputo reports the number of confirmed cases has increased to 621, which is 28 more than yesterday.

#### **28 Deaths in Tete City**

*MB0506140590 Maputo Domestic Service in Portuguese 1030 GMT 5 Jun 90*

[Text] The number of people killed by the cholera epidemic that has struck Tete city over the last few weeks has risen to 28. In the last five days only one person has died and 14 new cholera cases have been detected. Cholera cases in the city now total 729.

A source in the Health Ministry says there are no confirmed cholera cases in other parts of the country.

### **Cabo Delgado Province Leprosy Cases**

*MB0606090590 Maputo Domestic Service in Portuguese 0800 GMT 6 Jun 90*

[Text] More than 4,000 persons were suffering from leprosy in Cabo Delgado Province as of September 1989. Of that number, 26 have died. Some 4,300 lepers are undergoing treatment.

### **Health Directorate Reports 300 Cases of Measles**

#### **Outbreak Kills 50 Children**

*MB0206140890 Maputo Domestic Service in Portuguese 1730 GMT 1 Jun 90*

[Text] An outbreak of measles in Cabo Delgado Province had killed 50 children by April this year. A report from the provincial health directorate points out that about 300 cases of measles have already been diagnosed from January to April this year throughout nearly the entire province. The report presented to the recent session of the provincial assembly points out that medical personnel currently faced transportation problems in visiting the affected areas.

### **42 Children Die in Chiure District**

*MB1106201290 Maputo Domestic Service in Portuguese 1730 GMT 11 Jun 90*

[Text] A total of 42 children have died of measles in less than two months in (Macupo) village, Chiure District, in Cabo Delgado Province. Mozambique Radio in Pemba reported that these deaths took place between March and April this year. The source also pointed out that a team from the Broad Vaccination Program has already gone to that village.

## **NAMIBIA**

### **No Signs of Ovambo 'Mysterious Epidemic'**

*MB1206074090 Windhoek Domestic Service in Afrikaans 1900 GMT 11 Jun 90*

[Text] A Windhoek doctor, Dr. Okkie Oosthuizen, says the health situation in northern Namibia is virtually under control while incidences of malaria are gradually on the decrease.

Dr. Oosthuizen, who together with a group of medical doctors, visited the central and northern regions of Ovambo says no sign of the mysterious epidemic could be found. He says malaria and gastro are the causes of the health problems in that region.

Meanwhile, Rotary International donated polio vaccines worth 340,000 rands to the ministry of health and welfare services as part of the organization's contribution to the national vaccination campaign.

A Windhoek rotarian, Dr. Z. Ngavirue, gave the vaccines to Minister Nicky Iyambo and said that the vaccines would be used for the next five years to vaccinate Namibian children against polio.

## **SENEGAL**

### **Schistosomiasis Epidemic Caused by Dam**

*90WE0200C Dakar WAL FADJRI in French 2-9 Feb 90 p 5*

[Article by Moussa Fall: "Epidemic of Schistosomiasis at Richard-Toll Dam"]

[Text] The disease had been developing since 1989, but rather stealthily. The Richard-Toll Dam was quietly developing its epidemic of schistosomiasis. According to the same sources, the disease spread exponentially: 34 cases in the second quarter of 1989, 360 cases a few months later, and 1,492 in the last quarter of 1989. This reflected geometric growth is only now beginning to worry regional medical authorities. For this reason a special meeting to follow-up on municipal matters was scheduled to be held at the beginning of the week, presided over by Laiti Faye, prefect of Dagana. The meeting brought together Dr. Malick Niang, supervisory doctor of the medical region, medical and public health



technicians, the mayor of Richard-Toll, various prominent persons, and members of the municipal council.

The problem is now being raised with all the more sharpness since the Richard-Toll area is not only a regional economic center but also is a center of demographic growth, bringing together all of the circumstances favorable to the spread of an epidemic. And it would not be too much to speak of the authorities' concern that the disease may spread more rapidly than indicated above. Already, according to the supervisory doctor of the Richard-Toll region, research has revealed a high density concentration in the river and in related canals of the snails which propagate the disease.

The parasites that carry schistosomiasis are a public health problem more generally than in the Richard-Toll area alone. There is a risk that the disease will also expand to other, irrigated farming areas. The plan for the campaign against the disease is based on the united efforts of all of the administrative and municipal authorities of the area, with the cooperation of the Flemish area of Belgium.

This epidemic should not be surprising to the extent that, in addition to the actual conditions that have favored its spread, it is well known that dams leave neighboring areas vulnerable to certain epidemics, such as schistosomiasis. The health programs that should accompany the construction of dams on the river have never really gotten under way, since their implementation has been dependent on the development of an action plan.

The CSS [Senegalese Sugar Company] and its medical directors have been urged to set up a research laboratory, because no one ever emphasizes enough the extent of the pollution caused by waste products discharged by the sugar industry. However, this is a recommendation that threatens not to be followed up, as was the case with the recommendation made to the CSS in 1987 to install protective grills along its irrigation canals to prevent the people from using the polluted water that the CSS discharges into the river. It was at the time of that well-known cholera epidemic that the illness was attributed in part to the sugar mill, which, in many ways, has been beneficial to the city of Richard-Toll. However, it is nonetheless the source of all of the epidemics reported in the area and has contributed a great deal to the deterioration of ecological conditions. According to a study published by Enda [National School of Administration] in 1983, the CSS discharged every day into Lake Guiers 83,000 cubic meters of waste water mixed with chemical, toxic wastes.

Dr. Malick Niang, the supervisory doctor of the medical region, has also asked the municipality of Richard-Toll and other government authorities in the area to do everything possible to develop healthy living conditions for the people. Above all, the accent should be placed on information and on making people aware of the situation in order to eliminate this scourge by taking elementary action in the field of hygiene so that the prospects of the

reappearance of such diseases will be reduced. According to Dr. Malick Niang, "Living conditions here have been analyzed, and these studies have been proved to be overwhelmingly true. As long as this, overwhelming evidence leads to no action, the Richard-Toll area will continue to experience schistosomiasis because there is the area below the dam and other ecological conditions that promote this situation."

At the moment 7,000 antischistosomiasis tablets have been made available to the medical service in the Richard-Toll area, and the shipment of an additional 12,000 tablets is being scheduled.

A campaign against the snails will also be undertaken by using chemicals. It will also be necessary to protect the people by taking precautionary action. Meanwhile, Dr. Malick Niang says that all cases of schistosomiasis identified in health units will be handled in a systematic way by medical teams.

## SIERRA LEONE

### 12 Dead in Suspected Cholera Outbreak

AB2705192290 Paris AFP in English 1855 GMT  
27 May 90

[Text]Freetown—Twelve people, including a six-year-old child, have died in a suspected outbreak of cholera in Bo, some 150 miles (240 kilometers) southeast of here. According to reports from the area, the 12, including six miners, died four days ago in an "unexplained epidemic." Medical sources in the capital said they may have died from cholera.

Hundreds of other people are being treated at the endemic disease control centre in Bo while a medical backup team has been rushed to the area from Freetown. Cholera is prevalent in this West African state, particularly at the beginning of the rainy season.

## SWAZILAND

### Malaria Kills Seven Since March

MB0206115890 Mbabane THE SWAZI NEWS  
in English 2 Jun 90 p 1

[Article by Vusie Ginindza]

[Text] The death toll from malaria has risen to seven people since March this year.

One man died in May, adding to the six that had died since March.

A total of 567 have been confirmed to have contracted the sickness, out of 7,780 samples taken by the malaria control unit in various parts of the country.



At least 226 of the samples were taken from clinics and hospitals while the rest of the samples were taken by the Malaria team.

The figure for people testing positive went up 162 over that of April, when three people had died.

Mr Simon Kunene, a Malaria Programme officer said yesterday that compared to last year, the malaria situation this year is far better.

He said that last year in May, 1,800 tested positive to malaria.

Even so, however, the numbers of people who died during the same period was less.

## UGANDA

### 87 Dead in Meningitis Outbreak

EA1206161190 Kampala Domestic Service in English  
0400 GMT 12 Jun 90

[Text] According to the district medical officer, Arua, Dr. Charles Adriko, 87 people have died of a meningitis breakout in in the district in the past seven months: 359 cases were reported during the period.

In a report just published in Arua, the district medical officer said 16 deaths occurred in Arua municipality alone during the month of April and May this year. The report says the number of deaths could be much higher considering that some cases in rural areas are not reported.

So far, 60,000 people, which represents 10 percent of the district population, have been vaccinated against meningitis, and 30,000 doses of the vaccine is required as an emergency measure. The district medical officer has advised people to take precautions such as avoiding crowding around meningitis patients and at funerals.

Caretakers of patients should themselves be protected and suspected patients should be taken to hospital immediately. Efforts are being made to obtain the vaccines.

## Zambia

### TB Statistics; 13,000 Cases in 1988

54000063A Lusaka TIMES OF ZAMBIA in English  
7 Mar 90 p 2

[Text] The number of registered tuberculosis (TB) cases in Zambia has been fluctuating between 15,500 and 10,000 during the period 1980 and 1988.

A national report on TB says cases of pulmonary TB were more prevalent as compared to extra pulmonary TB cases.

Pulmonary TB attacks the respiratory system while the extra pulmonary TB infects other organs of the body including bones.

The number of pulmonary TB cases fell from 15,500 in 1980 to only 10,000 in 1985. But in 1988, the figure rose to 13,000, the report says.

Comparing the two types of TB incidents, the report gives 15,500 pulmonary TB cases in 1980 and only 2,000 cases of extra pulmonary TB.

TB has recently been associated with the Human Immune Deficiency Virus, the agent that causes AIDS.

Another report covering the second quarter of 1989 shows Lusaka topping the list with 26.9 percent TB cases followed by the Copperbelt Province with 15.5 percent.

Other provinces include Western 14.4 percent, Southern 9.5 percent, North-Western 8.9 percent, Eastern 6.6 percent, Central 7.3 percent, Northern 5.7 percent and Luapula 4.1 percent.

A TB specialist in Kabwe complained that little attention had been given to the prevention of the diseases in the past.

### Cholera Cases, Deaths Increasing

#### 98 Deaths in Lusaka

54000062B Lusaka TIMES OF ZAMBIA in English  
8 Mar 90 p 7

[Excerpts] Eleven more cholera victims have died in the past two weeks, bringing the death toll to 98 in Lusaka and some parts of Central Province, it was learnt yesterday.

A Government spokesman said the situation was getting under control as the Ministry of Health has closed three treatment centres and sent back 100 health workers mobilised from various provinces.

"As of yesterday, 29 new admissions and two deaths were recorded. The highest figure of six admissions has been recorded at Kanyama treatment centre," he said.

A Government spokesman said the accumulated total of patients treated up to Tuesday night was 1,486 out of which 1,294 have been discharged.

"The total number of patients still being nursed in the treatment centres stands at 45," the spokesman said. [passage omitted]

At the peak of the epidemic, health workers had become tight-lipped for fear of alarming the public.

### Luangwa District Reports Four Deaths

54000063B Lusaka TIMES OF ZAMBIA in English  
12 Mar 90 p 1

[Text] The Swedish Government is geared to revamp Lusaka's old sewerage system which contributed to the cholera outbreak by providing spare parts.

Head of the Swedish Development Cooperation in Lusaka office Dr Kjell Nystrom said yesterday that the office had received a request from the Government and was now examining the matter to target specific areas of action.

Describing the present state as "very preliminary," Dr Nystrom acknowledged that the cholera outbreak was in part caused by the old and fault-ridden sewerage network which was often blocked and spewed out pools of filth in residential areas.

Noting that in Sweden the sewerage system was properly maintained Dr Nystrom said his office was ready to help revamp the capital's sewerage system.

Schools in Lusaka and other affected areas reopen tomorrow following a Ministry of Health declaration that cholera is now under control.

But while the schools in Lusaka, Kabwe and Mumbwa which were closed on 5 February are re-opening, the disease has spread to Luangwa district where four people have died and two are being treated at Mphuka rural health centre.

"Whereas at the beginning of the cholera outbreak we had a daily total admission rate of 60 to 65 cases, the load is now 10 to 20 admissions daily," Minister of Health Cde Mavis Muyunda said.

Markets have resumed brisk business in the same filth for which reason they were ordered closed, with street vendors reappearing at roadsides.

Garbage heaps have reappeared right in the city centre with tramps and mentally disabled persons foraging for a pick.

Meanwhile, tenants at Kabwata Estates in Lusaka living in one of the blocks of flats are angered by the National Housing Authority's failure to provide them with water for over a week.

They said they had been reporting to the NHA every day but they only received empty promises as no worker turned up to repair the faulty water pump.

Because of the lack of water flies had invaded their homes and posed a health hazard, they complained.

"With the outbreak of the cholera epidemic in this town anything can happen to our children or even to ourselves," one of the tenants who declined to be named said.

### 113 Dead in Six Districts

54000062C Lusaka TIMES OF ZAMBIA in English  
28 Mar 90 pp 1, 14

[Excerpt] Zambia faces a nation-wide environmental crisis that could lead to a bigger cholera threat unless all district councils act to preserve the country's health status, Parliament heard yesterday.

A total of 113 deaths had by Monday been recorded in Lusaka Urban, and Lusaka Rural, Kabwe Rural, Mumbwa, Luangwa and Kitwe districts. There were 1,763 suspected and confirmed cases out of which 1,613 people were treated and discharged.

Health Minister Mrs Mavis Muyunda said in a ministerial statement:

"Unless high standards of water and sanitary conditions, as well as personal hygiene are maintained, cholera could become endemic in Zambia, a situation we can ill afford."

The prevailing unsanitary conditions in affected areas were "only a tip of the iceberg." Most council areas were unkempt.

There was need for all communities to address themselves to the problems of their environments to safeguard the health of the nation.

Going by the number of patients still being treated in Lusaka and Central provinces it can be said that cases have been reduced "drastically."

Three centres in Lusaka Urban, Chingwere, Kaunda Square and Railway clinic would be manned by provincial health workers under her ministry's close supervision.

The first cholera case was reported on 31 January at the University Teaching Hospital in Lusaka.

The Government had, during the epidemic, mobilised K31 million for the exercise out of which K27,458,569 was used.

Speaker Mr Fwanyanga Mulikita ordered Mrs Muyunda to explain to the House tomorrow to what extent cholera affected Mpulungu after she gave an unsatisfactory answer to a question by Mazabuka MP Mr Wycliff Mwiinga who asked what the ministry was doing to establish the origins of cholera so that it could not again be "transported" to Lusaka. [passage omitted]

### Kitwe—Cholera Claims 5 Lives

Five more people have died of cholera in Kitwe bringing the number to six, while 19 patients have been confirmed.

Copperbelt Central Committee Member Cde Rankin Sikasula was told yesterday, 45 others were suspected to suffer from cholera.

A report by acting district governor Cde Esther Chola says that there were no admission cases at the 10 centres set to control the disease.

Cde Sikasula who was receiving K2 million worth of drugs and equipment at Kitwe Central Hospital donated by Lions club of Kitwe said the situation has compelled provincial medical officer Dr Clement Musowe to shift from Ndola to Kitwe.

**310 Cases, 36 Deaths in Mpulungu**

54000062A Lusaka TIMES OF ZAMBIA in English  
30 Mar 90 p 9

[Excerpts] Several more cases of suspected cholera were reported in some centres in Kitwe yesterday while some suspects went to seek treatment at Kitwe Central Hospital.

Most centres did not have any admissions but there were cases recorded in Luangwa and the hospital.

On Wednesday Health Minister Cde Mavis Muiyunda directed that the hospital be closed to cholera cases to curb the spread of the killer disease which has so far claimed six lives. [passage omitted]

Meanwhile, 36 cholera patients have died in Nsumbu and Mpulungu where the epidemic first started last year.

Cde Muiyunda said this in a supplementary ministerial statement that 310 patients had been treated at centres in Nsumbu and Mpulungu but 36 died.

This was in answer to a supplementary question on Tuesday by Mazabuka MP Mr Wycliff Mwiinga who asked how many cases of cholera had been declared in Mpulungu where the scourge originated and what the ministry was doing to ensure that it was not again 'transported' to Lusaka.

Speaker Mr Fwanyanga Mulikita had directed Cde Muiyunda to give the answer to the House yesterday.

The first reported case of cholera was at Nsumbu fishing camp on the shores of Lake Tanganyika on 4 February in 1989 where 137 were treated but 21 died.

The child of the first victim transported the disease to Mpulungu where she was to be looked after by her mother's relatives but died on 15 March last year.

The second case of cholera in Mpulungu was a relation of the dead child followed by other cases prompting the establishment of four treatment centres.

The last case in Mpulungu was reported on 13 November and the patient was discharged on 18 November last year.

Measures introduced included setting up road blocks on the Mpulungu-Mbala and Mbala-Kasama roads, quarantining kapenta for seven days and ensuring fresh kapenta was frozen before and quarantined for seven days before being transported to the markets.

- About K10 million has been provided by the European Community (EC) for an emergency aid project to clear refuse from townships in Lusaka, a report by the project undertakers has said. [passage omitted]

After this emergency project in which they expect to haul more than 20,000 tonnes of refuse, the management

which is assisting the Lusaka Urban district council would make recommendations for possible future long term refuse collection.

Lusaka Urban District Council (LUDC) outlined to them priority areas to clear solid refuse following the outbreak of cholera which claimed more than 100 lives in Lusaka early this year. [passage omitted]

**9 People Dead in Kabwe**

MB0506191890 Lusaka Domestic Service in English  
1800 GMT 5 Jun 90

[Text] The cholera which appeared in Kabwe Urban nine days ago, killing nine people, is said to have been brought under control.

Kabwe Urban District Council Executive Secretary Comrade (Allwe Katapola) said today that the council and the health department in the area have managed to contain the spread of the disease with no more deaths reported since Saturday [2 Jun].

Comrade (Katapola), who is also chairman of the cholera surveillance committee, said that his committee of (?18) is working flat out to prevent the killer disease from spreading to other areas.

**Anthrax Kills Cattle in Mongu District**

54000063D Lusaka TIMES OF ZAMBIA in English  
26 Feb 90 p 1

[Excerpt] [Passage omitted] Five cattle have died in Mongu district from anthrax, a highly contagious disease which broke out last week.

Provincial veterinary officer Mr Rob de Rooij said yesterday that five cases have been confirmed in the district, but dispelled fears that human beings were affected.

The Veterinary Department in Mongu and the Ministry of Health have with effect from today imposed a restriction on cattle movement in the district until the vaccination process is completed.

"This restriction does not affect the movement of cattle in Senanga and Sesheke districts," he said.

After learning of the outbreak the Ministry of Agriculture sent vaccines to Mongu to help fight the scourge and prevent it from spreading to other areas.

**Red Leaf Blotch Threatens Soybean Crop**

54000063C Lusaka TIMES OF ZAMBIA in English  
14 Mar 90 p 7

[Text] Soyabean production in the country is gravely threatened by an outbreak of a disease capable of reducing the crop yield by 50 percent, it has been learnt in Lusaka.

The disease called "red leaf blotch" which was first noticed in Mkushi in 1979 is reported to have spread to most parts of the country.

Minister of Agriculture Cde Justin Mukando has since received a first hand report from a senior official at the Golden Valley Research Station in Chisamba who said the disease was only known in Africa and was a major problem in Zambia and Zimbabwe.

Soyabean coordinator at the research station Mr Fred Javaheri told the minister that the disease was soil borne and "can reduce the yield by 50 percent once it attacked the field."

He said controlling the disease by the use of chemicals was expensive for a peasant farmer and the drug could not be easily found in rural areas.

"The only practical way of getting rid of the disease is to find resistant varieties of the crop which can only be achieved by a research programme," he said.

Mr Javaheri told Cde Mukando that the project had already submitted proposal documents on how the problem could be tackled and it was up to the Government to look for funding agency.

The coordinator warned that more farmers might abandon soyabean production if no solution was found to the disease.

**5-Year Diarrhea Control Program Announced**

HK0706021090 Beijing CHINA DAILY in English  
7 Jun 90 p 1

[By staff reporter Xiao Zhu]

[Text] A five-year program on diarrhea control, beginning this year, has been mapped out by the Ministry of Public Health. The idea is to reduce the number of cases by 20 percent each year.

Based on a survey conducted in 21 provinces and municipalities it is estimated that 836 million cases occur every year.

Last year, 1.6 million cases were reported to medical authorities throughout the country.

Each child below age 5 in Shandong Province had diarrhea three times last year, and in Fujian Province, that number rose to 3.9 times.

Treatment is still inadequate in certain places, said an official from the Epidemic Control Department of the Ministry of Public Health.

Although medication with reduced side effects has been developed to cope with diarrhea, he said, some parents still give the wrong treatments to their youngsters because they do not know about new products.

Abuse of antibiotics to treat diarrhea may cause hearing problems in 8 million children each year.

Thus the ministry has made prevention and correct treatment top priorities in the program.

Specific points on diarrhea prevention are being publicized such as breast feeding, sanitary habits and sound eating.

The ministry is also introducing advanced and safe medications for treating the problem.

The plan aims to train 3,500 administrators and 787,300 medical workers to counter the problem in the next five years.

Five provinces—Shandong, Fujian, Gansu, Yunnan, Hunan—and Beijing will be program models.

By 1994, 50 percent of the provinces, municipalities and autonomous regions should have joined the national campaign.



## HONG KONG

### Concern About Hepatitis B Continues

54004069A Hong Kong SOUTH CHINA MORNING POST in English 29 Mar 90 p 6

[Text] Seven out of 10 family members of hepatitis B carriers have been infected with the disease, the Director of Health, Dr Lee Shiu-hung, disclosed yesterday.

The Government, however, has no plans to offer screening tests for the family members to prevent the disease from spreading because of the cost of such a programme.

Dr Lee told legislators it was not cost-effective to undertake the tests although such a preventive measures was desirable.

The Government earlier estimated that about a tenth of Hongkong's population were chronic carriers of the hepatitis B virus.

In the coming financial year, the Department of Health is to spend \$10.9 million on public health education, compared with \$9.2 million being spent in the current year.

## SOUTH KOREA

### Ministry Posts Warning of Encephalitis Outbreak

SK2450214 Seoul THE KOREA HERALD in English 24 May 90 p 3

[Text] The Ministry of Health and Social Affairs posted a nationwide warning against Japanese encephalitis yesterday as culex mosquitoes, the main transmitter of the disease, were discovered in the Kyongsangnam-do area recently.

Health officials have been ordered to step up disinfection against a possible outbreak of encephalitis, the ministry said.

## MALAYSIA

### Cholera Cases Nearing Epidemic Level

54004307A Penang THE STAR in English 19 Apr 90 p 5

[Text] Kota Baru—Twenty-three new cholera cases were reported in Kelantan today, bringing the total to 291.

A health department spokesman said that 12 new cases were reported in Tumpat, seven here, three in Bachok and one in Kuala Krai. Eight are carries.

Of the 291 cases, 177 were victims and 114 carriers.

However, the health authorities said it was unnecessary to declare a state of epidemic.

State Health, Unity and Tourism Committee chairman Lim Jit Keng said: "The situation has not reached a stage to declare a state of epidemic."

On a directive by Health Ministry Director-General Datuk Dr Abdullah Abdul Rahman yesterday that Kelantanese wanting to hold feasts must get permission from the authorities, Mr Lim said he welcomed any "fresh or positive steps" to fight the disease.

(The directive takes effect immediately.)

Mr Lim urged food handlers to go for check-ups to ensure that they are cholera-free.

He also reminded rafthouse dwellers on the banks of the Kelantan River to stop using river water.

### Typhoid Alert in Kedah State

#### One Death, 18 More Suspected Cases

54004307B Penang THE STAR in English 18 Apr 90 p 8

[Text] Kedah has been put on a typhoid alert following the death of 19-year-old factory worker in Kuala Nerang 10 days ago and another confirmed case in the same area.

Kedah Medical and Health Services director Dr Haji Halaj Ramatullah said today that 18 more typhoid suspects from Kuala Nerang had been warded at the general hospital here.

He said more suspected cases were being reported from the same area and that the department was investigating the source of the outbreak.

"We are trying our best to trace the victims' relatives and friends to check on their condition and see if they are carriers. We believe the disease is spreading fast.

"We are keeping a close watch on every fever case from the villages there," Dr Halaj said.

He added that the department's operations room would be open for 10 hours daily to monitor the situation.

He said Sofi Syed Salim, a worker in a sugar refinery in Padang Terap, died at the general hospital on April 8 and a Form Four student, a confirmed typhoid case, was discharged three days later.

Both cases were from Kampung Lubok Prong in Kuala Nerang, about 41km from here.

Dr Halaj said the doctors were trying to ascertain whether the 18 warded people were also victims of the water-borne disease.

He said the department had taken samples from the Kuala Nerang river to test for contamination.

It is learnt that the villagers had been using the river water for their cooking and bathing needs.



**Two Deaths, 29 Confirmed Cases**

90WE0198A Kuala Lumpur BERITA HARIAN  
in Malay 25 Apr 90 p 2

[Text] Alor Setar—Another typhoid fever patient has died, bringing total deaths to two since the disease hit Padang Terap District last month.

Zainul Ayob, 37, of Kampung Lubok Prong, Kuala Nerang, Padang Terap, died at General Hospital here at about 1000 hours today. The first victim, Syed Sofi Syed Salim, 19, died on 8 April. The two men were neighbors.

Typhoid fever struck 14 villages in Padang Terap District and a village in Pendang following a ritual meal at Kampung Lubok Prong on 18 March.

Dr. S. Gobindram, deputy director of the State Health and Medical Services Department said Zainul was brought to General Hospital last Tuesday [17 April] in serious condition.

Following the two deaths, state and district operations centers have remained open 24 hours a day, even on the Aidilfitri holiday, Dr. Gobindram said.

He said there have been 29 confirmed cases of the disease, including the two deaths.

Three other people suspected of having typhoid, namely a man and a woman from Kampung Lubok Prong and a man from Kampung Bemban, were admitted to General Hospital today, bringing suspected cases to a total of 49.

Only one person, a fourth-form student at a school here, has been released from the hospital during the last week.

Dr. Gobindram said that 16 health control teams formed in a cooperative effort by Health Department employees of Kubang Pasu and Pendang Districts continue to conduct preventive measures and identify new cases.

"Conditions of the newly identified sufferers are not cause for anxiety," Dr. Gobindram said.

He also confirmed that water of the Kuala Nerang River, which is used by most village residents in Padang Terap District, contains no typhoid bacteria. This was shown by laboratory tests on 128 samples of the river water.

Still, he advised the public not to use the river water for cooking while more laboratory tests are being made to find out why the disease is spreading.

As a step toward controlling the disease, he said, 1,312 residents of the affected villages have been given immunization shots.

He said that 1,344 stool samples have been taken and that health lectures have been presented to 6,049 residents of Padang Terap and Pendang.

In Johor Bahru, 34 of 107 people admitted to Sultanah Aminah General Hospital were confirmed to be suffering

from typhoid fever, Dr. Tan Ban Lee, director of the State Medical and Health Department, said today.

He told reporters here that the 34 confirmed cases consist of two residents of nearby Masai, 19 residents of the Cahaya Baru FELDA [Federal Land Development Authority] project, three from Kampung Sentosa, and five from Kerk Seng Estate. All of these are from the Masai area. There are five others from Pasir Gudang, near Masai.

All of these 107 people, including the two who died, were admitted to hospitals at various times since 12 March, beginning with a 19-year-old man from Cahaya Baru FELDA.

Dr. Tan said, however, that he has not yet determined whether the cases have been caused by contaminated food or by typhoid carriers.

He said that 40 stool samples, 46 food samples, and water samples from the affected areas have been analyzed but that all results have been negative.

Dr. Tan said six medical teams were sent to these areas two days ago to identify cases of the disease.

The teams are to visit every house, particularly at Cahaya Baru FELDA, to identify typhoid cases and to take action on them.

Dr. Tan said that in the last two days the teams have identified 35 cases of typhoid not reported to medical authorities.

He said a doctor is being assigned temporarily to the Cahaya Baru Village Clinic to facilitate care.

Health officers are also putting chlorine in wells in Kampung Sentosa and are giving health lectures and showing films on ways to prevent and control the disease.

Dr. Tan advised the public to drink only boiled water, to wash foods thoroughly before cooking, and to wash hands with soap after using the bathroom.

**THAILAND****Thais Soon To Be Free From Mosquito-Borne Diseases**

BK1905085590 Bangkok THE NATION in English  
19 May 90 p 1

[Text] Thai people could soon be free from the annoyance and disease of mosquitoes if they put a dose of larvae-destroying bacteria into their water-storage containers, the Science and Technological Research Institute of Thailand announced yesterday.

The institute in a press release said it had, with support from the Center of Genetic Engineering and Biotechnology, succeeded in developing a new bacterial breed that the World Health Organization certified as harmless to humans and animals.

Phuanphen Sunyanan, head of the bacteria development project, said *Bacillus sphaericus* 1598 would soon be available on the market in two forms—liquid and pills—to destroy mosquitoes that carry agents causing malaria and other diseases.

People could rid their households of the blood-sucking insects by putting a dose of the bacteria into their water containers where mosquito larvae develop.

The larvae are killed when they eat the bacilli, which destroy the larval digestive system, according to Santhat Rotchanasunthon, acting governor of the institute.

Santhat said the bacteria kill two kinds of common tropical mosquitoes—*Anopheles* which transmit the agent causing malaria and *Culex* which transmit an agent causing a brain disease.

**ARGENTINA****Hepatitis Outbreak in Several Provinces**

PY2505201690 Buenos Aires NOTICIAS  
ARGENTINAS in Spanish 2020 GMT 18 May 90

[Summary] Buenos Aires—Health officials are taking measures to improve drinking water and other health measures in the face of about 2,500 cases of hepatitis in the provinces of San Juan, Tucuman, Jujuy, Santiago del Estero, and Buenos Aires.

**BRAZIL****Rio Meningitis Incidence Higher Than Reported**

90WE0194B Sao Paulo O ESTADO DE SAO PAULO  
in Portuguese 4 May 90 p 10

[Text] The Rio de Janeiro State Health Secretariat was mistaken, at least in calculating the index for meningococcal meningitis during 1989. The real figure was 4.8 cases per 100,000 inhabitants, instead of 3.8 cases per 100,000, as had been reported on 16 April. The mistake was admitted yesterday by Diana Maul, superintendent of collective health, after the reporter from the State Agency had corrected the calculations. Despite the change in the number of cases, Maria Manoela dos Santos, the state health secretary, still claims that there is no epidemic.

That interpretation is not accepted by epidemiologist Keyla Marzochi, a researcher heading the Oswaldo Cruz Foundation, who holds the professorship in infectious and parasitic diseases at the Federal University of Rio de Janeiro. She guarantees: "There is a small-sized epidemic."

In her opinion, "The Health Secretariat refuses to admit the epidemic, because there has been no explosion in the number of cases." Also according to the epidemiologist, the term epidemic should be avoided so as not to frighten the population with the possibility of infection: "A mistrustful relationship has been created between the population and the health authorities."

Quite annoyed, and claiming not to have been the one who submitted the erroneous calculation, Secretary Maria Manoela asserted that the difference between 3.8 and 4.8 cases per 100,000 inhabitants does not characterize either an epidemic or an outbreak: "This disease has a common pattern in nearly all countries; it increases, and then immediately declines. That is what happened in Cuba." According to the secretary, the disease is endemic in the state of Rio and not an epidemic.

From June 1986 to the present, the incidence of meningococcal meningitis has only increased in the state. Keyla explains: "The gradual rise above the maximum anticipated limit has now assumed the form of an epidemic." In 1988, 497 cases of meningococcal meningitis and 94

deaths were reported. In 1989, that number rose to 678 cases and 118 deaths. From January until 27 April of this year, another 219 cases were reported, with 32 deaths. This shows an increase of 47.9 percent over the figure for the same period last year.

In Sao Paulo, the State Health Secretariat admitted the existence of a type B meningitis epidemic in the capital's metropolitan region during the winter of 1988. This observation was based on the fact that the number of cases reported during that year exceeded the average of four per 100,000 inhabitants that had occurred during the 10 previous years. Last year, five out of every 100,000 residents of the region contracted the disease.

**Contaminated Water Blamed for Hepatitis Outbreak**

PY2505233690 Rio de Janeiro O GLOBO in Portuguese  
21 May 90 p 7

[Summary] The State Environmental Engineering Foundation (FEEMA) has reported 22 cases of hepatitis in Travessao da Barra District, 400 km from Rio de Janeiro, and has warned that the disease is being transmitted by contaminated water.

**CHILE****Health Minister Reports on Meningitis Outbreak****No Vaccine**

PY0206145490 Santiago Domestic Service in Spanish  
1100 GMT 2 Jun 90

[Text] Health Minister Jorge Jimenez de la Jara has confirmed an outbreak of meningococcal type-B meningitis in Santiago. He added that three cases have already been registered and that the outbreak began in the northern and southern sections of Santiago. The minister explained that there is no vaccine for this type of meningitis.

Health institutions are adopting the necessary measures to handle this type of illness, including isolation of patients and the use of antibiotics to control the sickness.

**Further Details on Outbreak**

PY0506142090 Santiago Radio Cooperativa Network  
in Spanish 2300 GMT 4 Jun 90

[Excerpt] Health Minister Jorge Jimenez de la Jara today reported that there are 84 confirmed cases of meningococcal type-B meningitis in the country. He indicated that 44 cases have been confirmed in the Santiago metropolitan area, and that four patients have died.

The minister added that the patients are children under five years of age. He reiterated that there is no vaccine for this type of meningitis and that the antibiotic (rifampicin), which can be purchased in any drug store, is the correct preventative measure. [passage omitted]

### 106 B-Type Meningitis Cases; 6 Dead

PY0806195090 Santiago Television Nacional de Chile Network in Spanish 1800 GMT 8 Jun 90

[Text] The total number of reported B-type meningitis cases in Chile has risen to 106, of which six have been fatal. Maria Ines Romero, the Health Ministry programming department chief, has said that this increase can be attributed to the fact that medical services are now reporting the cases with more accuracy. She said that the people should be alert for the following symptoms: High fever, intense headache, vomiting, drowsiness, and the appearance of dark spots on the skin. The patient should be immediately taken to a first-aid station to receive treatment.

### Two More Meningitis Cases

PY1206215890 Santiago Radio Chilena Network in Spanish 1700 GMT 12 Jun 90

[Summary] This weekend, two more B-Type meningitis cases have been reported, and the total number is now 108, although no more fatal cases have been reported. Maria Inez Romero, head of the Health Ministry Planning Department, has reported that 61 of the cases were registered in the Metropolitan Region and that the outbreak is ending because the number of cases reported has been decreasing.

## ECUADOR

### 'Alarming' Increase in Malaria, Other Diseases

90WE0201A Quito HOY in Spanish  
14 May 90 pp 1A, 3A

[Excerpts] The malaria cases reported in the country have undergone an alarming increase during the past few years.

According to figures from the National Directorate for Epidemiological Control and Vigilance, malaria cases rose spectacularly starting in 1983, when they totaled 51,794, compared with 14,017 in 1982.

Between 1972 and 1981 the number of cases remained at relatively low levels, fluctuating between 5,538 and 12,739.

In 1984, on the other hand, the cases increased to 76,668; whereas 63,050 cases were detected the following year.

Similarly, in 1986 and 1987 the number of victims reported was high, totaling 54,734 and 68,044, respectively.

To obtain an idea of the increase in the incidence of malaria during the 1980's one need only observe that the rates of this disease during the 1970's never exceeded 402.6 cases for every 100,000 inhabitants. On the other

hand, during the decade that has just ended, the rates totaled as many as 840.9 cases for the same number of inhabitants (1984).

During the first 4 months of this year 16,000 cases of malaria were reported in the country. This proves that the nation is unable to eradicate a disease that has by now disappeared from countries with a medium level of development.

Within the country, the city with the most malaria cases is Esmeraldas. [passage omitted]

However, malaria is not the only other "typical disease" comprising the emergency clinical situation hovering over the Ecuadoran population.

In fact, according to the National Directorate for Epidemiological Control and Vigilance, between 1976 and 1987 tuberculosis cases were on the rise, even reaching a rate of 59.13 per 1,000 inhabitants in 1987.

This is a rather discouraging indicator of the state of the Ecuadoran population's health, because the presence of tuberculosis is closely linked to situations marked by insufficient nutrition, unsuitable working conditions, and adverse environmental conditions.

Tuberculosis cases are more common in the Amazon region provinces (especially Napo), and in other less developed areas, such as Loja, Bolivar, and Chimborazo.

Another disease that has severely damaged the health of Ecuadoreans is typhoid. According to statistics from the National Directorate for Epidemiological Control and Vigilance, the number of cases for every 1,000 inhabitants has risen since 1984, when it was 58 per 1,000. Three years later, it reached the rate of 140 per 1,000.

The population segments most vulnerable to this disease are those settled on the outskirts of urban areas, because they are completely lacking in any basic services, such as potable water or sewerage facilities.

Although these infectious diseases are the main causes of death in Ecuador, according to recent surveys an increase has been noted in other dangerous disorders, such as ischemic heart disease and cerebrovascular diseases. In particular, there has been a proliferation of malignant tumors which, as a whole, are the second cause of death in the country. The most common malignant tumors include cancer of the cervix and stomach cancer, acknowledged to be "cancers of the poor."

## GRENADA

### France Continues Tradition of Medical Aid

FL2505150290 Bridgetown CANA in English 1419  
GMT 25 May 90

[Text] St. George's, Grenada—France has agreed to build a maternity clinic for Grenada, adding to its long-standing medical aid, Grenada Health Minister

Kenny Lalsingh has reported. Lalsingh told CANA that the clinic which will cost about 240,000 East Caribbean dollars (one EC dollar = 37 U.S. cents) will be constructed in the La Sagesse area in the rural parish of St. David's. He said the agreement was first reached with the previous government but since taking office in March the Nicholas Brathwaite administration had had to make some slight changes to the plan, including location of the clinic.

Lalsingh also reported that Grenada and France last week signed an agreement under which Paris will make about 750,000 EC dollars available to the east Caribbean island for a sewerage project. He said the money would be used to link the sewerage system at the main St. George's General Hospital with the one for the entire city. The agreement was signed on May 16.

Lalsingh also reported Grenada was looking to France for assistance in the training of doctors, nurses, and other medical specialists. France has been providing assistance to Grenada in the area of medicine for several years. At least one French doctor based in Dominica visits Grenada on a monthly basis to look after patients with ear, nose, and throat problems. A French epidemiologist has also been based in Grenada for the past two years.

## MEXICO

### Health Secretary Reports Increase in Measles

PA0406160290 Mexico City THE NEWS in English  
26 May 90 p 2

[By Felix Arciniega]

[Text] During the first four months of this year, 32,464 cases of measles were reported across the nation. This is a 60 percent increase over 1989 figures for the year and there seems to be little possibility of eradicating the plague in the short run, but we can save the lives of some patients, said Health Secretary Jesus Kumate Rodriguez Thursday.

Speaking during his appearance before the Chamber of Deputies Health Commission Kumate acknowledged that the health sector of the nation was low on needed funds because of the world tendency to increase the price of medicines.

"The war against diseases is expensive and those that win must have money," he said.

He added his department needed financial resources in order to hire qualified personnel at decent wages, purchase needed medicines, instruments and equipment and the political will to solve the nation's health problems.

He added that despite severe limitations in most areas mentioned, the average life span in Mexico has increased and the incidence of a number of ailments has diminished.

The official told legislators that children across the nation will receive two measles vaccinations. He added that cases of measles will continue being reported but the number of deaths will decrease, he explained.

Following the explanation, the Chamber of Deputies Health Committee was in full agreement that an increased budget is required in benefit of National Health Services.

## NICARAGUA

### Measles Epidemic Kills 59 Children

#### Hospital Emergency

PA2605175390 Paris AFP in Spanish 0712 GMT  
23 May 90

[Text] Managua— Nicaraguan Health Minister Ernesto Salmeron announced on 22 May that there is a "hospital emergency" because of the measles epidemic that has killed 59 children and threatens some 1,725 infected citizens.

"This is a true emergency," said the doctor who urged, through the daily BARRICADA, that all young children be protected to prevent more deaths.

The epidemic has taken more lives on the Pacific side of the country where the population is more dense, according to the Health Ministry.

Twenty children have died in Granada and Masaya, 18 in Managua, and 21 in the northern part of the country.

#### Vaccinations Begin

PA1106121590 Managua Radio Sandino in Spanish  
1200 GMT 7 Jun 90

[Text] Beatriz Delgado Hernandez, who works in the Health Ministry Infectious Diseases section, has reported that 12 children have died of measles in Region 4. This raises to 56 the number of people that have died from this disease. The victims, whose ages range from 1 month to 9 years, had not been vaccinated because of their parents' negligence. Hernandez said that about 23,000 children will be vaccinated against measles this weekend.



## PANAMA

### Health Minister Denies Meningitis Outbreak

PA1206162790 Panama City CRITICA LIBRE  
in Spanish 12 Jun 90 p 7

[Text] Health Minister Dr. Jose Trinidad Castillero categorically denied there is an outbreak of "meningococcic meningitis." However, he confirmed that there is a possibility of a measles outbreak.

Visibly annoyed by a statement made by Rafael Olivardia—who he described as a "pseudo" leader—concerning a meningitis outbreak that supposedly caused the death of a two-year-old boy residing at the Albrook [refugee] camp. Castillero described Olivardia's statement as irresponsible, adding that sooner or later he will have to respond to the authorities for creating a situation of panic among the population.

Minister Castillero said: "We make responsible statements to the population because the public has a right to know what is happening in a situation like this.

"Therefore, we cannot let anyone like Olivardia make statements without any knowledge, and without measuring the consequences," Minister Castillero stressed. Such statements are punished by law, he added as he challenged Olivardia to prove that the Health Ministry is trying to conceal the existence of an epidemic as he said.

Concerning a possible outbreak of measles, Castillero said that the possibility exists, given that it could spread from the United States. He said: I warned about this possibility in January when we began a massive vaccination campaign for children in distant areas. An epidemic of this nature in Panama is possible and therefore we have taken preventive measures by conducting a

massive vaccination campaign among children throughout the country, he concluded.

## PERU

### Health State of Emergency in Four Departments

PY0606195490 Lima EL COMERCIO in Spanish  
28 May 90 p A 1

[Summary] The government has declared a health state of emergency in the cities of the departments of Loreto, San Martin, Ucayali, and Huanuco after confirming the presence in those jurisdictions of the *Aedes Aegypti*, an insect transmitting several diseases, including dengue fever.

### Dengue Epidemic in Iquitos

PY0905162890 Lima Television Peruana in Spanish  
0100 GMT 9 May 90

[Excerpt] A dengue epidemic has been reported in Iquitos. Health Minister Paul Caro Gamarra has said that measures are being taken to eradicate and control this disease by fumigating the area and by sending medicine as epidemiologists there.

[Begin Caro Gammara recording] Today we have been informed that between 13,000 and 15,000 people in Iquitos have dengue. The outbreak began in the Panchana port area. Today, according to statistics, in the average house where six people live, four of them will have dengue.

Although dengue has returned to Peru after 31 years, this is the first time that it has been seen on an epidemic level as formerly only eight, nine, or 10 cases were reported. [passage omitted] [end recording]



**BANGLADESH****Foot-and-Mouth, Other Cattle Diseases in Various Areas****Brahmanbaria—'Hundreds Affected'**

54500093A Dhaka THE BANGLADESH OBSERVER  
in English 25 Apr 90 p 9

[Text] Brahmanbaria—Unknown cattle disease spreading in an epidemic form in the district cost at least 200 cattleheads while hundreds still remained infected during the last 15 days, people in the countryside complained, reports UNB.

The disease broke out in all the upazilas of the district, particularly in Pairtala south and north, Medda, Goker-naghat, Majlishpur and other areas.

Most of the cattle died of the disease, locally called "jara", which starts with infection in the feet and mouth.

Another disease that makes the cattle unconscious and kills them suddenly, has also been rampant, local farmers reported. Doctors at the veterinary hospitals could not identify the disease.

Some affected farmers told the UNB correspondent that lack of proper diagnosis and medicines resulted in the fast decimation of the cattleheads in the villages.

They apprehended that if preventive measures could not be taken against the disease immediately, the villagers would soon lose most of their herds.

**Joypurhat—1,500 Cases, 150 Dead**

54500093A Dhaka THE BANGLADESH OBSERVER  
in English 25 Apr 90 p 9

[Text] Joypurhat—A large number of cattleheads have been attacked with various diseases. Foot and mouth disease locally called "khura" broke out in an epidemic form in five upazilas of the district.

According to an unofficial source at least 150 cattleheads died and 1,500 others were attacked with the diseases.

It is feared that tilling of land in the khariz season will suffer due to the outbreak of the disease.

The treatment of cattle is being hampered due to the scarcity of vaccination.

Life-saving drugs have become scarce and dear in Joy-purhat district for sometimes past.

It is reported that the five upazilas of the district have no drugs such as teramycin, pronapen, s-drugs, corti-costeroide and vaccine to cope with the situation.

At least 100 cattleheads are going back from the Upazila Livestock offices without any treatment from the five upazilas of the district every day.

When contacted, Upazila Livestock Officers and Veter-inary Assistant Surgeons told me that they have no "buffer stock" of drugs and vaccines to meet the urgent requirements.

Three posts of Veterinary Assistant Surgeons (VAS) in three upazilas have been lying vacant for about 5 years. As a result, the people of three upazilas are deprived of veterinary facilities.

**Satkhira—3,000 Cases, 300 Dead**

54500093A Dhaka THE BANGLADESH OBSERVER  
in English 23 Apr 90 p 9

[Excerpts] Satkhira—A large number of cattleheads has been attacked by various diseases. Foot and mouth diseases locally called "Jara" broke out in an epidemic form in seven upazilas of Satkhira district.

According to an unofficial source at least 300 heads of cattle died and 3,000 others were attacked by the disease. [passage omitted]

Meanwhile, acute scarcity of fodder has been prevailing in different areas of the district as the drought and flood damaged grass and other kinds of fodder last year. It has resulted in the gradual loss of health of cattle and sharp fall in milk supply.

Price of straw has increased abnormally in different parts of the district. Oil-cakes bran and husk used as fodder have also gone beyond the purchasing capacity of the farmers.

**Comilla—150 Cases, Goats Affected**

54500093A Dhaka THE BANGLADESH OBSERVER  
in English 19 Apr 90 p 9

[Text] Comilla—"Foot and Mouth" disease of cattle broke out in an epidemic form in different parts of Comilla district. At least 150 cattlehead, mostly calves died of the disease during the last couple of weeks.

Many of the milk cows attacked with the disease have lost their capacity of giving milk. As a result supply of milk in the markets has considerably decreased.

On the other hand, the cattle owners are not getting medicines in the Upazila Livestock Offices to treat their cattle.

A report from Noapara adds: At least 500 goats have died of disease in different villages of Pasapole union under upazila Chaugasa during last one month. At least 1,000 goats have been attacked with the disease.

The upazila Livestock Department did not take any initiative to check the disease.

### **Gazipur—2,000 Cases, 200 Dead**

54500093A Dhaka THE BANGLADESH OBSERVER  
in English 14 Apr 90 p 9

[Excerpts] Gazipur—A large number of cattleheads have been attacked [by] various diseases. Foot and mouth diseases broke out in an epidemic form in five upazilas of the district.

According to an unofficial source at least 200 heads of cattle died and 2,000 others were attacked by the diseases. [passage omitted]

Meanwhile, acute scarcity of fodder has been prevailing in different areas of the district as the drought and flood damaged grass and other kinds of fodder last year. It has resulted in the gradual loss of health of cattle and sharp fall in milk supply.[passage omitted]

### **Trees in 'Vast' Area of Sundarbans Affected by Disease**

54500094A Dhaka THE BANGLADESH OBSERVER  
in English 26 Apr 90 p 8

[Excerpt] Satkhira—A vast area of Sundarbans has been affected by "Chhatrak" disease which broke out in an epidemic form. A large number of the Sundari, Mehgani and other trees of the Sundarbans have dried up causing a loss of Tk. 30 crores.

It is learnt that due to abnormal salinity in the water of rivers in Sundarban areas almost all the trees have been affected badly and the forest is threatened with extinction.

The salinity rate in the water of Rivers Bhairab, Kacha, Mattabanga, Mongla, Posur, Danlkhal, Baleshar, Madhumati, Kaliganga, Baratana, Bishna, Pungachali etc. has abnormally increased.

According to sources the salinity in the water of these rivers was 18,000 centimetre in 1984. While it was 25,000 centimetre in 1985, 32,000 in 1986, 37,000 in 1987 and 39,000 in 1988. The salinity has increased by 41.69 in March last.

An expert of Water Development Board told this correspondent that due to abnormal salinity in the rivers valuable trees of the Sundarban have dried up and government is losing over Taka 30 crores annually. He opined that rate of salinity will increased within 3 months.

Another expert of Geological Survey Department opined that normal salinity of the area would be 1,000 to 2,000 centimetre only. As such the present abnormal increase in the rate of salinity in the water of rivers in Sundarban areas is threatening the existence of the forest and trees including Sundari, Garan, Kewra and other trees of Sundarban have been damaged.

The people of the 16 districts of the southern zone who are dependent on the resources of Sundarbans have become disappointed due to non-availability of wood in the Sundarbans.

According to a survey report 2,220 square mile area of the Sundarban was attacked with the disease damaging Sundai trees on thousand acres. More than 30,000 Suredari trees dried up. If this situation continues the entire Sundari trees will be annihilated.

An expert of the Water Development Board told that due to abnormal increase in the salinity in the water of these rivers of the Sundarbas [as published] this disease broke out throughout the forest areas.

According to the Forest Department sources a scheme costing Tk. 28 crore was submitted to the government for approval for the protection of 14 areas of the Sundarbans against the disease. The scheme is still lying with the divisional Forest Office Khulna.

Moreover, a scheme involving Tk. 15 lakh was also submitted to the concerned ministry for approval for planting more new saplings in the affected areas to save the Sundarbans from ruination. But no fund has been sanctioned by the government.

When contacted the officials of the forest range told me that Changemari, Chanpai, Bougoalini, Meher Alis Char, Lattimari, Harintona, Sufarkhali, Hochai, Joy-mourigold, Dowalia, Kalagaci, Changla and other places of the Sundarbans have been attacked with the disease.

The people of the area hope that the authority concerned will take immediate steps to save the resources of the Sundarbans. [passage omitted]

## **EGYPT**

### **Cancer Institute Says 15 Percent of Patients Children**

90WE0176A Cairo AL-WAFD in Arabic 13 Apr 90 p 3

[Article by Usamah Haykal: "AL-WAFD Inside Cancer Institute; 15 Percent of Institute Patients Are Children; Blood Cancer, Lymph Gland Cancer, and Soft Tissue Cancers Are Most Prevalent; Children Suffering From Cancer Are Victims of Blood Marriages, Environmental Pollution, Alcohol, and Pesticides"]

[Text] The word "cancer" is very significant to any human being. It is a disease that sends shivers and causes worry in the hearts. When AL-WAFD went to the Cancer Institute, we noticed the large number of children frequenting the institute. Children amount to 10-15 percent of the total number of patients frequenting the institute and most of them suffer from blood cancer, lymph gland cancer, and soft tissue cancer.

This percentage is very high for the advanced countries and the same as in the developing countries.

There are numerous reasons for this, including the population growth and the shift away from plant food which gives the body immunity against cancer. Moreover, environmental pollution has increased at fearful rates, not to mention smoking which is a major cause of cancer for both the smoker and those who happen to be around him. Blood marriages are also a major cause for this disease, according to doctors' assertions.

During AL-WAFD's tour of the children's section at the Cancerous Tumors Institute, we noticed the presence of a large number of relatives of child patients. The signs of grief show clearly on the faces because the word "cancer" signifies a lot to a child. Our attention was drawn to Mahmud Ahmad 'Abd-al-'Azim, a 14-year old student at Field Marshal Ahmad Isma'il School in Asyut who is being treated at the Cairo University Cancerous Tumors Institute. He described the development of his condition, saying:

Two years ago, I developed a fever which reached 40 degrees centigrade. Ordinary methods did not help bring down the temperature. Medical tests and analyses were conducted and they revealed the presence of acute leukemia. I entered the institute on 16 April 1989 and was treated with injections for 5 weeks. I came back but could not stay in the hospital because of the frequent daily deaths and because of the sounds of pain rising day and night. But I am now in good condition, God be thanked.

The physician supervising Mahmud 'Abd-al-'Azim's case has said that the patient needs a brain transplant and that this requires the availability of a total body radiation table, which costs nearly \$47,000, to prepare the patient for the operation. But the institute does not have the needed allocations to purchase this important table.

Amidst the crowd gathered in front of the children's section, I noticed a child (nine years old) and I asked him about his condition. He said: My name is Ahmad Muhammad Ramadan. I developed lymph gland tumors last May. The doctors referred me to al-'Arish Hospital because my father works in Rafah. I was given first aid and the necessary chest x-rays were taken. I was also given a television x-ray and medical tests. When they became certain of the tumor's presence, they referred me to Abu-al-Rish Hospital on 16 August 1989.

The physician supervising Ahmad Ramadan's case at the Tumors Institute has said that the child was transferred to the institute by Abu-al-Rish Children's Hospital. His face was jaundiced and he suffered from severe stomach pains and weight loss. A sample was taken from his neck and he was proven to have a benign tumor. We have treated him chemically with subdermal injections and with capsules. He is now approaching final recovery.

#### Comes From Sawhaj for Treatment

I asked 'Adil Mahmud 'Abd-al-Latif, a 17-year old student at a secondary business school, about his condition and he responded: I come from Sawhaj every 21 days to continue my chemotherapy for lymph gland cancer. This has been going on since 1987. The symptoms began with swelling in the neck when I was 12. My father was compelled to bring me to Cairo weekly. When my condition improved, I started coming from Sawhaj by myself for sessions of electrical [radiation] treatment. I feel that I have improved noticeably.

The physician supervising 'Adil 'Abd-al-Latif's case has said: This case has no known cure. 'Adil will continue to come to the hospital until next July only.

The troubles of Intisar al-Sayyid Buhayri, an eight-year old second grader, began with pains in her left leg. She went to a neurologist in Kawm Hamadah District. The doctor diagnosed her condition as a case of tonsillitis and prescribed some penicillin injections for her. But the pain did not stop. She was then subjected to a tonsillectomy without any medical tests. After the surgery, medical tests were conducted on her at Itay al-Barud Hospital. Those tests showed a drop in the number of red blood cells and an increase in white blood cells. So Itay al-Barud Hospital transferred Intisar to al-Shatibi University Hospital in Alexandria where she stayed for 25 successive days for chemotherapy. But her condition did not improve. Consequently, she was transferred to Abu-al-Rish Hospital which subsequently transferred her to the Cancerous Tumors Institute. Her condition required a blood transfusion to reduce her fever. She stayed at the hospital for 45 days. With continued chemotherapy and radiation sessions, she began to feel better. Her condition has been diagnosed as tumors in the leg and under the ear.

#### Mother's Tragedy

As for the case of Samah Muhammad Ahmad, a two-year old child from al-Sharqiyah, her mother has said: Her condition began with swelling in the abdomen (below the rib cage). X-rays and medical tests conducted at al-Zaqaziq University Hospital showed the presence of a tumor in an advanced stage. She was transferred to the Tumors Institute in November 1989. The tumor has spread to the mouth, the abdomen, and the blood.

As the mother finished describing Samah's condition, the treating physician said that Samah's case is very advanced and hopeless. Tears froze in the mother's eyes and the mother of another child who has been cured rushed to buy a doll and gave it to Samah as a gift.

Hibah Ahmad 'Abd-al-Zahir, a five-year old child, attracted my attention. She said that she suffered from leukemia and tumors in the abdomen and the face and that she had undergone several surgeries and was then transferred to the Tumors Institute where she has been receiving treatment. Hibah lives with her grandmother

because her mother divorced her father and married another man and because her father suffers from diabetes.

I noticed the large number of cases among children and I asked some physicians at the institute about the percentage of children among those who frequent the institute. They said that this percentage ranges from 10 to 15 percent, adding that the statistics in this area are not accurate because of the unavailability of a computer.

It is well known that numerous factors cause cancer. There are environmental causes or disease symptoms [as published] that lead to cancer, there is man's biological makeup, there is the inadequacy of the immunity system, there is the type of food consumed, there is infection with viral or bacterial diseases or with endemic diseases, and there is alcohol consumption, not to mention smoking which is one of the most significant causes of cancer.

To put our finger on the real causes of the increased number of children frequenting the cancer institute, we interviewed Dr. Muhammad Rida Hamzah, head of the children's section and director of Cancerous Tumors Institute Hospital, who said: Cancer treatment has become available to all. As for children, there seems to be increased incidence because the institute is the only party in the republic to have a children's section. Moreover, there are numerous circles that refuse to treat children afflicted with certain diseases. For example, bladder cancer among children is removed by surgery. But other parties refuse to perform the surgery, even though it is easy, and refer the cases to the Tumors Institute. The increased percentage is also due to the noticeable population growth.

As for the scientific reasons leading to this increase, the main reason is still unidentified. However, there are factors that lead to increased cancer incidence. These include, for example, all the elements of environmental pollution, be it chemical or radioactive. Even the "natural" universal radioactivity has increased, posing a danger to the environment and causing cancer. Car emissions, the industrial waste and pollutants that we dump in the water, and microbiological pollution are all causes that lead to increased cancer incidence generally.

Smoking is a major cause of cancer. Infection with certain diseases is likely to lead to the development of cancer.

One of the factors with a major influence on the increased cancer incidence among children is the large number of marriages among blood relatives, the excessive and unsound use of some drugs, such as some antibiotics, anti-rheumatism drugs, sedatives, and narcotics.

The cancers prevalent among children include leukemia, lymph gland cancer, and soft tissue cancer.

### Scientific Progress and Cancer

Finally, we interviewed Dr. Muhammad Nabil al-Balqini, dean of the Cairo University's Cancerous Tumors Institute. We asked him about the reasons for the increased cancer incidence among children. He said: Nearly 10,000 patients visit the institute annually, including 1,000 children or 10 percent the total number of patients. This is because we are the only center that treats cancer cases among children. A 10 percent rate is high for the advanced countries. Children constitute a higher percentage of the population in Egypt than they do in these countries. The 10 percent incidence rate is the same as in the developing countries.

There are different types of cancer that afflict children, including leukemia, lymph gland cancer, kidney cancer, and cancer of the nervous system.

**AL-WAFD:** How can cancer be detected early among children?

**Dr. Balqini:** Attention must be paid to abdominal swelling, to vomiting, urine in the blood, and to vision problems. The child must be taken to a specialist as soon as such symptoms develop.

Cancer varieties differ from country to country, depending on the nature of the people involved. The advanced countries suffer from higher incidence of lung and stomach cancer whereas developing countries have a higher incidence of bladder cancer because of the presence of bilharzia in these countries. Generally, cancer incidence is higher in the advanced countries because the shift from plant food to animal food increases fats and proteins in the body. It has been found that plant food enhances man's immunity.

### Study Shows Most Egyptians Suffer From Liver Disease

90WE0174A Cairo AL-MUSAWWAR in Arabic  
20 Mar pp 34-37

[Interviews with liver specialists Dr. Yasin 'Abd-al-Ghaffar and Dr. 'Abd-al-Rahman al-Ziyadi, and pediatric specialists Muhammad Khalil 'Abd-al-Khalik and Dr. Nabil al-Mahalawi by Layla Marmush and Shawqi Mustafa; dates and places not specified]

[Excerpts] [Passage omitted] "A survey of health problems is basic to our society and must be a part of our ongoing evaluation of our country's situation," states Dr. Yasin 'Abd-al-Ghaffar, a pioneer in the treatment of liver diseases and the chairman of the Society of the Friends of Liver Patients in the Arab World, as he began the interview. He then adds:

Therefore, without exaggerating, I can say that liver diseases, which have numerous causes, are our leading health problem.

Bilharzia is the first cause. Studies and research conducted in many of our countryside's villages have found



that 60 percent of the population is afflicted by intestinal bilharzia, which affects the liver and its functions. In a study recently conducted in the al-Manzilah area, we found that 45 percent of the population in the 20 to 30 age bracket have liver disease. In the 30 to 40 bracket, the percentage is 50 percent; in the 40 to 50 bracket it is 55 percent; and after age 50, it is 63 percent.

The second factor is viruses. Viruses are as pervasive as bilharzia. By viruses, I mean those that cause chronic liver inflammation, which are the "B" Virus, Delta Virus, and the "La-A" and "La-B" viruses, now designated the "C" Virus following its topological identification, which is one of the most important recent achievements in the field of liver diseases, because, like the "B" Virus, the "C" Virus has been proven to cause severe and chronic inflammation of the liver leading to liver cirrhosis. The effect of the "C" Virus in causing cancer of the liver has not been determined. We in Egypt feel that this virus plays a very important role in causing different liver diseases in a large group of patients previously thought to suffer from the "La-A" Virus and "La-B" Virus.

In the advanced countries, the "C" Virus was a significant cause of liver inflammation via contaminated blood transfusions until it became possible to eliminate blood containing the "B" Virus through control methods. It is well known that the "B" Virus and the "C" Virus are transmitted primarily via blood transfusions or injections.

We have so far been unable to properly control blood transfusion operations in order to eliminate the "B" Virus from blood transfusions. We are moving toward controlling this virus. However, the "C" Virus situation remains the same.

The spread of bilharzia and the acute spread of the "C" Virus are tangible causes of different liver diseases in Egypt. However, other factors probably play a large role, namely environmental pollutants, even though the current means of verification are unable to confirm this.

#### **Liver Diseases Affect Egyptian Children**

Is liver disease in Egypt limited to a specific age group, or do the roots of the problem extend into infancy?

In other words, what is the situation of Egyptian children regarding liver disease and to what extent is this situation linked to social circumstances?

Dr. Yasin 'Abd-al-Ghaffar outlines the features of this problem:

We see many health problems in adults and mature persons. Many of these problems begin in childhood and continue through maturation to present themselves as health problems in adulthood. In some cases, a child is exposed to specific circumstances that makes him susceptible to liver disease when he matures or grows older. This means that the circumstances of children are to a

large extent directly and indirectly responsible for diseases that occur in adulthood. Solving the liver disease problem must therefore begin in infancy.

In the first hours following birth, the first thing to which an Egyptian child's liver is exposed is the "B" Virus, which is transmitted from his mother.

In a study we conducted in the al-Minufiyah area, we found that 11 percent of the mothers were carriers of the "B" Virus, but did not manifest the disease. By monitoring those mothers, we found that the rate of transmission of the virus to their children in the first hours after birth is 40 percent—the Egyptian child's first tragedy upon entering this world.

A child exposed to the virus shortly after birth is exposed to it again through direct association with his virus-carrying mother during his first year. Ninety percent of the adults afflicted with the virus rid themselves of it. Thus, only 10 percent of those afflicted have immune systems that are incapable of eliminating the virus.

The probability of the virus persisting in newborns, whose immune systems are not fully formed as a rule, is 95 percent. The virus persists in 60 to 75 percent of cases involving children afflicted at age one. In children afflicted at age one to three, the rate declines to 60 percent.

In general, opportunities for the virus to affect the liver exist if the virus is attached to the body for a long time. The effects are severe inflammation, caused directly by the "B" Virus or by the Delta Virus, which lives on the "B" Virus. If the "B" Virus remains in the liver for a number of years, it can cause dangerously severe inflammation, chronic inflammation, liver cirrhosis, or liver cancer. However, if the body rids itself of the virus, the likelihood of cancer is negligible. Hence, the pervasiveness of liver cancer in countries where the "B" Virus is transmitted to the child in the first hours after birth, or at a later time, and remains latent in the liver.

We recently detected this phenomenon in Egypt. However, we cannot eliminate it until after continual monitoring for a period of no less than the next 20 years.

What applies to the "B" Virus might also apply to the "C" Virus, but we cannot ascertain this until after research.

After early childhood, in the fifth year, the child can be afflicted with bilharzia, whose rate of incidence increases until it peaks in the 15-20 age bracket. This situation is unique to the Egyptian child, because, in other countries where children are exposed to the "B" Virus in early infancy, such as Taiwan, China, and Japan, bilharzia does not afflict the liver at a later age.

Therefore, a fateful combination of factors afflicts the Egyptian child. Full concentration on this aspect is a primary duty among our health responsibilities.

A recent study conducted in Banha showed that 60 percent of the children aged one to ten have liver dysfunction. In another study in a village in al-Minufiyah, 42 percent of all residents were found to have liver diseases.

Another recent study shows that 89 percent of those over 50 are afflicted with the "B" Virus.

What does that mean? How did it happen? If we follow this reality from the start, we find that there are basically two main causes: bilharzia, and the "B" and similar viruses. These two factors operate during the entire period that leads up to liver cirrhosis in adults.

We have three pictures of liver disease: Chronic liver disease caused by bilharzia, liver cirrhosis caused by the virus, and liver cirrhosis caused by bilharzia and the virus together, a condition that has special complications.

We see these three conditions in Egypt. We find that they develop in childhood. They are a calamity for Egyptian children.

#### Silent Cirrhosis

Dr. 'Abd-al-Rahman al-Ziyadi, professor of digestive system and liver diseases at 'Ayn Shams University Medical School, continues defining the features of the picture:

The "B" Virus is among the most dangerous diseases afflicting the livers of Egyptian children. The danger here is that, in newborns, the immune system, which has a primary role in fighting the virus, is very static. Consequently, the virus grows and develops gradually. The symptoms of the disease do not appear, but the virus continues to develop. When a person reaches 30 or 40, we are suddenly surprised by the symptoms of liver cirrhosis and its complications, which are hemorrhaging and vomiting blood. We call this type of cirrhosis "on-going" or "silent cirrhosis," because, in most cases, it develops undetected in the liver and is manifested only in the complications of cirrhosis. These symptoms occur mostly as a delayed reaction following strenuous exertion or the ingestion of aspirin, which results in the rupturing of veins and hemorrhaging.

Silent cirrhosis may be accompanied by liver coma.

#### Compulsory Injection

Dr. Muhammad Khalil 'Abd-al-Khalik, professor of pediatric medicine at Qasr al-'Ayni Medical School further defines the picture: Liver problems generally begin in childhood. The elimination of these problems requires preventive action before they occur. This can be accomplished by inoculating children against the "B" Virus, as is done in some areas, such as Japan and Saudi Arabia, where inoculations are compulsory.

If compulsory inoculation to protect children against the liver inflammation is not possible, the least we can do is

inoculate children susceptible to affliction with this virus, children with bilharzia, children with anemia who require constant blood transfusions, and those who associate with these children.

#### Congenital Defects

Dr. Nabil al-Mahalawi, prof of pediatric surgery at the al-Azhar Medical School, completes the picture:

A child is sometimes born with symptoms of jaundice, which become more serious after he reaches three months, when he develops cirrhosis of the liver due to blocked bile ducts caused by a congenital defect in their formation. This defect may be partial or complete. Such cases require early detection by means of an ultrasound examination and the use of radioactive material. Operations are required when the defect is located in the bile ducts outside the liver, before cirrhosis develops. If there are no bile ducts inside the liver, a liver transplant is needed.

#### Liver Diseases and the Economy

The problem of liver disease in Egypt is not limited to its health aspect alone, despite its importance. Dr. Yasin 'Abd-al-Ghaffar states that the problem also affects the country's economy: We learn from reliable statistics and studies that we have conducted recently that a large percentage of Egyptian citizens are afflicted with liver diseases. This affects their vitality and activity, and consequently their productivity; this is the direct economic effect. However, regarding the indirect effect, we find that this enormous percentage requires treatment that costs huge sums that are paid by the individual or the state. The two fatal liver diseases, cirrhosis and cancer, are the leading causes of death in the elderly. I would not be exaggerating if I said that they are the leading cause of death at every age beyond childhood. Traditional means are not effective in treating these two diseases. Liver transplants are required. A liver transplant operation in one of the specialized centers in the United States costs between \$150,000 and \$200,000, or 0.5 million Egyptian pounds. The success of liver transplant operations is certain. The latest statistics published by a world pioneer in the liver transplant field, Starz, show that from February to December 1989, not one death occurred in the specialized center where he performs his operations in the United States, during or directly after an operation as a result of the body's rejection of the transplanted liver. Also, complications resulting from the connection of the ducts are few. Ninety percent of those who receive liver transplants live for another year, and those who survive the first year have a 90-percent chance of living for five more years.

Economically speaking, liver transplant operations are a main source of income for states with specialized transplant centers. We in Egypt are attempting to establish a specialized liver transplant center. It will not only solve the problem of treating liver disease among Egyptians,



but will also generate significant income, as do specialized centers in the world. If we can succeed in this, we will have saved sums that would have otherwise gone into foreign treasuries. At the same time, such a center would be an important source of national revenue amounting to no less, if not more, than our income from the Suez Canal.

Do we have the capabilities to establish such a center?

The esteemed scientist, who has dedicated his life to pursuing innovations to treat liver problems in Egypt and the world responded:

We have them if we have strong faith. If we seek to confront reality and search for a solution to liver disease, one of our priorities should be to introduce liver transplants to Egypt. We are all making efforts to achieve that.

In discussing the liver, we must mention the Liver Institute at al-Minufiyah University, which is unique to the Middle East region, having been established as a specialized center for the study of the liver, which is Egypt's primary health problem. It includes a large laboratory, equipped with the latest equipment. The institute is divided into several departments: chemistry for the analysis of liver functions, hematology for the analysis of blood diseases, pathology for the analysis of tissue and signs of tumors, immunology, and finally the parasites department. [passage omitted]

## INDIA

### Meningitis Unchecked in Orissa District

54500082 New Delhi *PATRIOT* in English  
27 Mar 90 p 6

[Text] Kalahandi, the drought prone district of Orissa which made the headlines three years back faces a bigger problem this time. After starvation deaths, the killer this time is meningitis.

Meningitis had killed thousands during the drought. The then Prime Minister Rajiv Gandhi visited the district thrice.

Then the district medical authorities awoke and medical aid was rushed to the affected areas. But in absence of the effective vaccine, cheap and adulterated sulpha drugs were hardly capable to check the disease and the epidemic took its toll. However, after few months, a declaration was made by the Government that the epidemic is over.

But the truth is different. The epidemic is still haunting the district, according to a survey conducted recently by 'Parivartan,' a voluntary organisation, based in Bhawanipatna, district headquarter of Kalahandi. The report says that people are still dying of meningitis for lack of adequate medical attention.

The report said, about six people have died this year in villages of Pokhara, Kumbhar Kani, and Jam Guda in

the Thuamal Rampur block of the district, and many others are counting their last days. Besides, three to four persons have died in some interior villages of Narla block. The report said that, all these cases have not been recorded by the medical administration.

Replying to the query of the Parivartan workers, the medical authority people said that, the disease had been brought under control and the mortality rate in the district is decreasing.

The report stated that the veracity of reduction of mortality is doubtful as it does not take into consideration the unreported deaths. If all deaths are reported, the number goes up much more than 30 percent as is shown by the district medical authorities, the report added.

The district medical administration is also understaffed and at present only one doctor is attached to the mobile party to attend patients in all three blocks in the district affected by the disease, said the report.

The most important point which makes the situation worse is the uncooperative attitude of tribals to allopathic treatment.

The report says that the district medical authorities have requested for more health workers to the Government, but no action has been taken so far. If they have to play any useful role, the Government should recruit one worker per one thousand population, suggests the report.

### Statistics on Tamil Nadu Deaths From 'Brain Fever'

54500083 Bombay *THE TIMES OF INDIA* in English  
18 Apr 90 p 7

[Text] Madras—As many as 439 people lost their lives due to "brain fever" in Tamil Nadu's South Arcot district from January 1986 to July 1989. A total of 906 people were affected by the disease.

Brain fever claimed 226 lives in 1986, 169 lives in 1987, 19 lives in 1988 and 25 till July last, the health minister, Dr Ponmudi, told Mr S.D. Ugam Chand (AIADMK) in a written reply in the state assembly today.

In another written reply, the transport minister, Mr M. Kannappan, told Mr Andi Ambalam (Congress) that 1,500 people had lost their lives in road accidents throughout the state from January 1988 to February 1989. Of these, 303 deaths involved state-owned transport corporation buses. While, 1,296 deaths occurred in 1988, the first two months last year accounted for 204 deaths.

## IRAN

### Twenty Million Suffer From Iodine Deficiency

90AS0033X Tehran KEYHAN in Persian 28 Mar 90 p 3

**[Text] Eight hundred million people throughout the world suffer from one kind of disorder or another as a result of iodine deficiency. The number of people who suffer from iodine deficiency in Iran reaches about 20 million, from amongst whom about three million individuals are afflicted with large and prominent goiters.**

The aforementioned statement was made by Dr. Feraydun Azizi, the director of the State Committee for Combatting the Disorders Resulting From Iodine Deficiency and the president of Martyr Beheshti's Medical College, in an interview with KEYHAN.

First, concerning the situation and the number of individuals afflicted with goiters in the country, with regard to the geographic location, he stated: A research of the goiter situation afflicting more than 80,000 students between the ages of six to 18 years in 18 various provinces of the country indicates that in every single province the goiter affliction is existent. The provinces of Esfahan, Chahar Mahal va Bakhtiari, and Ilam with 70 percent, and Bakhtaran and Tehran with between 50 to 58 percent show a higher rate of affliction. Similarly, complications from goiters in the Provinces of Fars, Zanjan, Kerman, Kohkiluyeh va Boyer Ahmad ranges between 40 to 54 percent, while in East Azarbaijan, Bushehr, Khorasan, Mazandaran, Central, Semnan, and Sistan va Baluchestan provinces the ratio reaches between 17 to 35 percent, and in Hamadan and Khuzestan provinces the figure hovers around 11 percent.

Dr. Azizi further went on to add that proper prevention and combat against any disorder resulting from iodine deficiency, reducing the rate of affliction and the spread of goiters to below 10 percent for the six to 18 year age group by the year 1379 [21 March 2000-20 March 2001], and providing a minimum of 150 micrograms of iodine a day for each and every individual by the year 1375 [21

March 1996-20 March 1997] are some of the goals of the State Committee fighting iodine deficiency. He also stated: Preparing and distributing iodine through injection or oral use for the afflicted individuals comprise other programs which are ready for execution. Likewise, putting a stop to the preparation of non-standard salt without iodine by some factories and finally, the mandatory use of iodined salt at the food-plants constitute some other objectives of the aforesaid committee as well.

In continuation, while citing the causes which bring about the incidence of goiters and similar disorders resulting from iodine deficiency, he stated: The main cause for the goiter disorder is a deficiency of iodine in drinking water and other foodstuffs. Iodine constitutes part of the thyroid gland's hormones. A deficiency of thyroid hormones causes extensive disorders in the growth and multiplication of brain cells, and if proper treatment is not sought in three or six months at the most, the result will be a severe loss of memory. Those individuals who have an iodine deficiency, may at various stages of their lives become afflicted with goiters, face reduced psychosomatic nerve reactions, sleepiness, general weakness, and a slowness of physical growth. Furthermore, other causes such as miscarriage, dead fetus, and increased rate of death in general could be related to this disorder.

The president of the Martyr Beheshti's Medical College, with regard to the medical training in the country, went on to add: Taking into consideration the 2.15 percent reduction in the number of medical graduates and 3.6 percent reduction of the number of physicians throughout the country, the total number of physicians in the year 1373 [21 March 1994-20 March 1995] will reach 36,000. In comparison with 1366 [21 March 1987-20 March 1988] this figure shows more than two-fold increase. Likewise, taking into account the fact that every year we will have an enrollment of about 4,000 medical students, by the year 1381 [21 March 2002-20 March 2003] the number of physicians throughout the country will reach about 51,640.

**Two Cases of Plague Registered in Central Asia Region**

LD1705203890 Moscow Television Service  
in Russian 1700 GMT 17 May 90

[From the "Vremya" newscast]

[Text] Of late we have been getting to know more and more new facts which were previously held in greatest secrecy. This concerns the most varied spheres of our life. We are citing this fact for the first time.

Last year on the territory of Central Asia, there were two cases of people falling ill with plague. One or two cases are registered every year. [Video shows clip of desert, then a building with a noticeboard bearing the words: Karakalpak Anti plague Station; a spiked gate with the words passes must be shown; external shots of a building with sealed-up windows; internal shots of building with a notice saying infected block]

It only appears that time stops and life dies in the desert. The dunes and drifting sands are a world of their own which is often hostile to man. It is precisely from the desert that the terrible epidemics of plague used to come, laying waste villages, towns, and whole countries. We are accustomed to believing that plague has been eliminated in our civilized age. And at first glance it is not totally understandable why such a modern medical institution equipped with expensive equipment is needed.

But that is only at first glance. These insects in the test-tube are carries of plague. The people who work here are, without any exaggeration, in deadly danger and all the preventative measures—the hermetically sealed doors, the heavy hermetically sealed protective clothing—are not being overcareful. They are essential.

Epidemics flare up among the rodents that inhabit the deserts, especially among the large sand rats. Seven epidemiological teams go out into the Kyzylkum and Ustyurt every season. The permanent antiplague and cholera laboratory works all year round. All of this is a barrier in the way of particularly dangerous infections.

[Begin recording] **Unidentified correspondent:** At present much is being said, and we speak about the ecological catastrophe which has struck your republic and which has struck the Aral region as a whole. Does this in any way affect your problems—the particularly dangerous infections? **A. Ya. Kenzhibayev, chief of the Karakalpak antiplague station:** Yes, along with the evaporation of the Aral Sea, one can say that a third desert has been formed there, the Arkum. Our research has shown that rodents and other carriers of infectious diseases, including plague, are actively moving into this dried out sector.

**Correspondent:** That is yet another source of danger?

**Kenzhibayev:** Yes, the zone of activity of our station is expanding. [end recording]

Unfortunately, the ecological disaster in the Aral area is not decreasing. It is increasing. And that means that the danger of particularly dangerous infections is increasing, too.

**Kazakhstan Cattle Disease**

PM2905122190 Moscow IZVESTIYA in Russian  
27 May 90 Morning Edition p 2

[Report by S. Suslikov: "Epidemic Was Not Successfully Concealed"]

[Text] North Kazakhstan Oblast—The public of North Kazakhstan Oblast is demanding that the entire oblast be declared an ecological and epidemiological disaster zone. A group of deputies has suggested that this question be submitted for examination by the next session of the oblast soviet of people's deputies.

It has emerged that virtually all the republic's sick large horned cattle were concentrated in the prosperous order-bearing oblast. That is one-third of the country's livestock [as published]. Specialists' conclusions come down to one thing—the extraordinary situation which has taken shape with regard to brucellosis and tuberculosis in North Kazakhstan should be regarded as an ecological catastrophe. It is a case of hundreds of thousands of diseased agricultural and wild animals and unusual anomalies which have arisen in livestock raising and which threaten man's health. Losses in the oblast's economy are already reaching 100-150 million rubles a year. According to preliminary estimates they will almost double with the transfer to meat and milk procurements under the new state standard.

"The situation which has taken shape is the result of the aspiration to make out that what is desired is reality," said S. Medvedev, chairman of the North Kazakhstan Oblast Soviet. "People have been working with sick livestock with a risk to their health for decades and do not even receive danger allowances because livestock with tuberculosis are not supposed to exist at the stock-raising units. According to existing instructions these livestock should be slaughtered immediately. But tell me how you can slaughter livestock and at the same time fulfill or even overfulfill the stepped up plans and socialist pledges issued from above. The result was that, standing on the edge of the abyss, they sent victorious reports to their superiors and received orders and stars as Heroes of Labor..."

How to struggle against the disaster now? In the opinion of S. Medvedev again, the first thing is to stop deceiving people. It is extraordinarily difficult to do this even under the conditions of glasnost.

"In America," oblast soviet deputy L. Pleshakov said, "when they encountered similar problems they decided to burn the old stockraising units together with the sick livestock and to construct new units and bring in healthy livestock. This option was the cheapest and the expense was recouped instantly. The logic is different in our

country. The government allocated only crumbs for the livestock's recovery and immediately increased the plans for milk deliveries to union-republic stocks by 25,000 tonnes, thus obliging the livestock raisers to build up the production of milk which, according to the USSR veterinary charger, should be processed into pot butter. But... the milk has been released for sale year after year and the consumer has been receiving a dangerous food. Why? We deputies decided to put the question point-blank right now because it will have to be answered anyway. People will ask..."

There is no disputing that even a republic does not have the forces to replace virtually all its livestock. In the opinion of specialists, to overcome the crisis situation

this problem must be given state and social importance and special services and material and manpower resources must be enlisted. Such a comprehensive solution is possible right now if the USSR Council of Ministers state commission for emergency situations engages in this problem. With great powers and the necessary forces and funds the commission will be able to pool the efforts of union and republican organs, ministries and departments, and public organizations in the struggle against socially dangerous diseases—brucellosis and tuberculosis.

But in the meantime the epidemic is surreptitiously creeping beyond the oblast.

## NORWAY

**207 Cases of Influenza**

90WE0197B Oslo AFTENPOSTEN in Norwegian  
11 May 90 p 4

[Unattributed article: "A New Bacterium Threatens Small Children"]

[Text] *Haemophilus influenzae* is about to create a new, serious health problem for small children in Norway. Similar to meningococci, the bacterium can lead to cerebrospinal meningitis or blood poisoning. Last year, 207 incidents of illness caused by this bacterium were reported to the National Institute of Health (SIFF).

## TURKEY

**Screwflies Reported Heading for Mediterranean**

90P20034A Istanbul MILLIYET in Turkish  
5 May 90 p 15

[Editorial Report] Istanbul MILLIYET in Turkish on 5 May 1990 carries on page 15 a report by Ercumet Isleyen on the killer screwfly (*Callitroga Americana*). The article states that according to the latest reports screwflies are heading from North Africa to the Mediterranean. Turkey would reportedly be the first country to be threatened. Erkut Onar, chief of the Parasitology Section of the Pendik Animal Disease Center and Research Institute in Istanbul, said that all precautionary measures have been taken: "If the flies reach here we are ready to fight them."

## UNITED KINGDOM

**Myalgic Encephalomyelitis a Drain on UK Economy**

54500080 London THE DAILY TELEGRAPH  
in English 11 Apr 90 p 6

[Text] The disease ME, often wrongly dubbed Yuppie Flu, which affects more than 150,000 people in Britain, is a major drain on the economy, doctors said yesterday.

Myalgic encephalomyelitis is believed to be caused after exposure to a number of viruses which seem to persist in some patients. It attacks the brain, nervous system and muscles, leaving its victims exhausted and miserable.

The chairman of the first world symposium on ME in Cambridge, Dr Byron Hyde, from Ottawa, said: "ME represents a major health and economic threat second only to that of AIDS. Yet governments persist in turning their backs."

Dr Betty Dowsett, consultant microbiologist at Basildon and Thurrock Health Authority, reported on a study of 420 patients who had been ill for more than 10 years. It showed that more than 80 percent of professional and

technical workers suffering from ME had been obliged to retire early or work part-time.

Dr Dowsett said studies indicated that ME was three times as common as Multiple Sclerosis. "The potential financial loss to the community based on a comparison with MS suggests £300 million annually in lost earnings, to say nothing of lost skill and lost parental care and education."

Peter Pallot, Health Services Staff, writes: thousands of accident victims with permanent brain damage, are discharged from hospital without being assessed by experts in retraining memory and other mental functions, a conference in London organised by the Association of Psychological Therapies heard yesterday.

Doctors did not refer patients for treatment because they mistakenly thought nothing could be done, said Dr Doreen Baxter, neuropsychologist at the rehabilitation unit at St Andrew's Hospital, Northhampton.

Head injuries were up to 40 times more common than spinal injuries yet there were no specialist brain treatment units in hospitals, she said.

"The majority of patients are being discharged without detailed examination of their mental state. They can be confused, their moods and character can change, but their relatives are not told what to expect."

But rehabilitation could transform someone who was a strain on his family into a useful member of society.

**Imported Goats Have Disease New to Britain**

54500079 London THE DAILY TELEGRAPH  
in English 16 Apr 90 p 8

[Article by David Brown: "Goat Farmer Calls for Disease Inquiry"]

[Text] A farmer who bought a herd of goats imported from West Germany is demanding an investigation into why they were allowed into Britain while showing signs of a disease which can affect humans.

He says the goats, one of which was paraded before the Queen at the Festival of British Food and Farming in Hyde Park last May, displayed symptoms while in quarantine before being cleared for release on to British farms.

The Ministry of Agriculture said the goats were covered by a veterinary health certificate issued in West Germany, and added: "On this basis we saw no justification for detaining the animals."

Last week the ministry announced that some of the Boar goats, a South African breed, suffered from Caseous Lymphadenitis, which had never been reported in Britain before. Ten farms have been placed under restriction in an attempt to prevent the disease spreading to sheep flocks.



The disease attacks the lymphatic system causing skin abscesses and general loss of condition. It is not fatal, but can cause heavy losses for sheep and goat farmers. People most at risk are those in close contact with infected animals. Yesterday Mr Michael Gaisford, owner of the Bucks Goat Centre at Stoke Mandeville, who bought the imported goats, said: "The ministry could have prevented this happening. Instead, it has effectively introduced a new disease to Britain which could affect the national sheep population and put people at risk."

Mr Gaisford said the goats originated in South Africa and were imported from West Germany in the autumn

of 1987. "Abscesses were reported on the goats before they left West Germany. They were also reported to ministry vets when the animals spent a month in quarantine at Southampton. The goats were then sent to Lancashire for further quarantine where the abscesses were again drawn to the attention of a ministry vet."

Mr Gaisford, who bought the animals to cross with his herd of dairy goats, is demanding compensation and says he will take legal action if necessary. The ministry said: "Three goats did have abscesses while still under quarantine, but they had veterinary certificates from the country of origin which said the herd was free from Caseous Lymphadenitis."



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